

ABSTRACT OF THE DISCLOSURE

Dispersions of hybrid polyurethane particles are made using miniemulsion
5 techniques. An isocyanate-terminated prepolymer and a monomer are mixed and
dispersed in an aqueous phase to form a dispersion of droplets. All droplets are
polymerized and chain-extended in one step to form hybrid particles containing a
polyurethane and a polymer of the monomer. This process provides a simple
10 method of making hybrid particles, in which particle size and the number of
particles is controlled in the mixing step. The hybrid particles often have a core-
shell morphology, with the polyurethane being concentrated in the shell and the
polymer being concentrated in the center of the particle.

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